MAXILIN

A Research History Worth Investigating

SCIENTIFIC & REGULATORY DOSSIER — PHYSICIAN EDITION

Four decades of microbiological research, institutional clinical use, veterinary field application, patents, and an indexed peer-reviewed publication document the development of an unusual antibiotic-tolerant *Lactobacillus acidophilus* lineage — strain 2585 — known commercially as Maxilin. This dossier assembles that record for physicians and scientifically sophisticated practitioners: what is documented, what is testimony, and what remains to be studied.

Compiled from laboratory protocols, institutional clinical acts, patent records, and professional-association documentation from Kazakhstan and the Eurasian Patent Organization, together with an indexed 2000 publication in *Stomatologiia (Moskva)*.

This document does not claim regulatory clearance or clinical proof for any disease indication. Evidence type is labeled throughout; a consolidated limitations section appears in Section 13.

Contents

1. The Convergence of Evidence

No single document in this dossier, on its own, proves the modern case for Maxilin. What is unusual — and worth a physician's attention — is the **convergence** of independent evidence streams across four decades, multiple institutions, two countries' patent systems, and both human and veterinary populations, converging on the same organism and the same reported behavior: antagonism toward pathogenic and opportunistic microorganisms, and tolerance of antibiotic exposure.

1	5+	2	40+
Indexed peer-reviewed publication (PMID 10961107)	Independent institutional clinical records, 1994–2025	Granted patents (KZ 2004, Eurasian 2010)	Years of continuous development & use history

Human observations + Microbiological research + Veterinary field experience + Institutional records + Patents + Professional documentation + Modern lab testing + Practitioner experience

= a research history worth investigating. The sections that follow walk through each evidence stream in turn, tagged by type, so you can weigh each on its own merits rather than take the convergence on faith.

2. The Scientific Story: Origin & Development of Strain 2585

HISTORICAL ACCOUNT

The scientific interest in beneficial lactic-acid organisms goes back to Ilya Mechnikov's early-20th-century work connecting lactobacilli to human health — a line of inquiry that Soviet and post-Soviet microbiologists in Kazakhstan continued directly. The strain behind Maxilin sits in that lineage.

What company and scientist-lineage material describes

According to company-authored lineage material, an early researcher in this line, **Ivan Maximovich Ivanov**, is described as having worked on beneficial lactic-acid organisms before the direction was carried forward by **Galina Maksimovna Ivanova**, whose name appears as a co-author and signatory on multiple primary documents in this dossier (the 1985 opytnaya partiya production act, the KazNMU-adjacent research, and several 1994 institutional acts — see Sections 4–5). **Grigory Ivanovich Miroshnikov** — the patent holder on both the 2004 Kazakhstan patent and the 2010 Eurasian patent (Section 9) — is the figure most consistently documented across primary sources: patents, production acts, and the 2019 commercial partnership with EnergyMax that led to current-scale production.

The antibiotic-tolerance story

Historical technical documentation describes strain 2585 as having been progressively developed, over a period of years, to retain viability and antagonistic activity under exposure to multiple antibiotics — including streptomycin, neomycin, chloramphenicol (levomycetin), and gentamicin, per the 1993/1994 Ministry-approved clinical-use instructions (Section 6). This is a genuinely unusual property for a lactobacillus preparation: most probiotic organisms are themselves antibiotic-sensitive and are typically dosed separately from antibiotic courses to avoid being killed alongside the target pathogen. Technical documentation reports that strain 2585 preparations were used *concurrently* with antibiotics in several of the veterinary and human contexts described later in this dossier, and that antagonistic activity was preserved against organisms including Salmonella, Staphylococcus, Proteus, and Pseudomonas aeruginosa under the conditions studied.

Antibiotic tolerance refers to characteristics of strain 2585 itself, and should not be interpreted as evidence that Maxilin replaces antibiotics or treats antibiotic-resistant infections — see Section 3 for the one indexed study that specifically examined effects on pathogen behavior.

Reported isolation history

Company narrative material describes the original organism as isolated from lamb abomasum content and newborn meconium, framed in that material as evidence of a naturally-occurring, not synthetically engineered, organism. This detail comes from company historical narrative, not from a laboratory isolation record in this dossier, and is presented here as such.

Source: EnergyMax company narrative document; 1993/1994 Ministry-approved clinical-use instructions (antibiotic list); Eurasian Patent No. 014227 B1 (Miroshnikov, patent holder)

MAXILIN IN THE PEER-REVIEWED LITERATURE

Independently searchable. Independently indexed.

Pichkhadze G.M., Rusanov V.P., Novoselov V.E.

Stomatologiia (Moskva). 2000;79(4):22–27

PMID: 10961107

Kazakh National Medical University named after Asfendiyarov

PUBLISHED RESEARCH

An independently indexed Maxilin-specific publication provides direct microbiological evidence involving strain 2585 and clinically relevant isolates — searchable and verifiable by any physician, outside of anything supplied by the company or by Kazakh institutional archives. The study examined strain 2585 lactic-acid bacteria against four clinically significant organisms isolated from patients with open mandibular fractures under active wound infection: **Candida albicans, Pseudomonas aeruginosa, Staphylococcus aureus,** and **Escherichia coli**.

Reported hierarchy of antagonistic activity (strongest to weakest)

Rank	Organism	Clinical relevance
1 (strongest)	Candida albicans	Fungal wound colonization — notably difficult to manage clinically
2	Pseudomonas aeruginosa	Common, often multidrug-resistant wound/hospital pathogen
3	Staphylococcus aureus	Leading wound-infection pathogen
4 (weakest of the four)	Escherichia coli	Common wound/systemic pathogen

WHAT THIS STUDY ESTABLISHES

Under the conditions studied, strain 2585 lactic-acid bacteria showed measurable antagonistic activity against all four organisms tested, most pronounced against *C. albicans*, followed by *P. aeruginosa*, *S. aureus*, and *E. coli*. The indexed abstract further reports that antibiotic-resistant clinical isolates of these organisms showed reduced epidemiological significance and demonstrated sensitivity to the antibiotics tested within approximately 3–4 days of exposure to the lactic-acid bacteria — with the strongest effect against *P. aeruginosa*, somewhat less against *S. aureus* and *E. coli*.

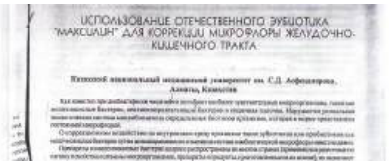
Does not establish: that Maxilin treats wound infections, fungal infections, or antibiotic-resistant infections in practice; that it can replace antibiotic therapy; or that findings from wound-isolate organisms in a 2000 Kazakh study generalize to gut microbiome use of a 2026 sachet formulation. The resensitization finding is an in vitro laboratory observation on bacterial isolates, not a clinical outcome in treated patients — the full paper (paywalled) would still be needed to review methods and confirm how sensitivity was measured.

4. Human Evidence: KazNMU Dysbacteriosis Research

HUMAN CLINICAL/INSTITUTIONAL

30	4 wks	25 / 30	5 / 30
Patients: chronic gastritis + pronounced dysbacteriosis	100 ml, 3× daily, before meals	No longer showed pronounced dysbacteriosis after treatment	Retained mild residual findings

Lactobacilli and bifidobacteria — entirely absent at baseline in this group — reappeared, and dyspeptic symptoms resolved.


ИСПОЛЬЗОВАНИЕ ОТЕЧЕСТВЕННОГО ЭУБИОТИКА "МАКСИЛИН" ДЛЯ КОРРЕКЦИИ МИКРОФЛОРЫ ЖЕЛУДОЧНО-КИШЕЧНОГО ТРАКТА

Institution: Kazakh National Medical University (KazNMU), Almaty
What it documents: The published microbiological survey of dysbacteriosis patients and the treated chronic-gastritis cohort described below.
Significance: Confirms this research exists as a real institutional publication, not a company summary — title, university affiliation, and methodology are stated on the original page.

INSTITUTION	Kazakh National Medical University (KazNMU), Almaty	**DATE**	Undated journal excerpt (pp. 217–218)
POPULATION	80 adults with clinically diagnosed dysbacteriosis (fecal microbiology survey); a separately recruited, age-matched healthy volunteer comparison group (size not stated in the source text); a 30-person subgroup with chronic gastritis complicated by dysbacteriosis received the treatment described below.	**EVIDENCE TYPE**	Institutional clinical research; not described in the source as randomized or placebo-controlled.
INTERVENTION	Acidophilus strain-2585 preparation, 100 ml, 3× daily, 30 minutes before meals, for 4 weeks.		
OUTCOMES REPORTED	25 of 30 treated patients no longer showed pronounced dysbacteriosis after 4 weeks; 5 retained mild residual findings. Stool normalized; dyspeptic symptoms resolved.		
MICROBIOLOGICAL FINDINGS	Baseline (all 30): no lactic-acid or cellulolytic bacteria detected; presence of staphylococci, Proteus, lactose-negative E. coli, and yeast-like Candida. Post-treatment: lactobacilli and bifidobacteria reappeared.		
LIMITATIONS	Source text does not state the size of the healthy control group, whether the 30-patient group was randomly selected, or whether outcome assessment was blinded. Full paper not independently reviewed beyond the excerpt provided.		

The biological picture, not just “improved”

BEFORE MAXILIN	AFTER MAXILIN

No lactic-acid bacteria detected	Lactobacilli reappeared
No cellulolytic bacteria detected	Bifidobacteria reappeared
Staphylococci present	—
Proteus present	—
Lactose-negative E. coli present	Reduced lactose-negative coliform counts
Yeast-like Candida present	— (not separately re-assessed in excerpt)
Loose, foul-smelling stool	Stool normalized
Dyspeptic symptoms present	Symptoms resolved

Source: KazNMU, "Ispol'zovanie otechestvennogo eubiotika 'Maksilin' dlya korrektsii mikroflory zheludochno-kishechnogo trakta," pp. 217–218

5. Human Evidence: Institutional Clinical Records (1994–1995)

GOVERNMENT/PROFESSIONAL

Three separate institutions, treating three different populations, under the same Ministry-approved protocol, reported the same directional finding: reduction of lactose-negative coliforms and reappearance of bifidobacteria and acidophilic organisms following Maxilin use.

INSTITUTION	Republican Polyclinic, Military Medical Service, KNB Republic of Kazakhstan	**DATE**	Aug–Oct 1994 (act signed 31 Oct 1994)
POPULATION	Women with genital infection and dysbacteriosis	**EVIDENCE TYPE**	Institutional clinical act, physician-signed.
INTERVENTION	Maxilin per Ministry Pharmacological Commission protocol No. 2 (19 Feb 1994); intravaginal application under bacteriological monitoring.		
OUTCOMES REPORTED	Resolution of discharge, itching, mucosal inflammation. Cervical mucus neutrophil function normalized by day 5–7.		
MICROBIOLOGICAL FINDINGS	Vaginal smear: absence of putrefactive/pyogenic flora; presence of Döderlein bacilli post-treatment.		
LIMITATIONS	No control group described; no patient count given in the act.		

Original document: 1994 Republican Polyclinic act, page 1
Signed by: Dr. N. Poszdeeva (OB/GYN) and V. Kushtalova (Deputy Chief, Republican Polyclinic)
Seal: Official Republican Polyclinic seal visible over the signature block

INSTITUTION	Institute of Pediatrics, Almaty	**DATE**	Oct–Dec 1994 (act approved Mar 1995)
POPULATION	Children with intestinal dysbacteriosis, chronic colitis, secondary malabsorption	**EVIDENCE TYPE**	Institutional clinical act, physician-signed.
INTERVENTION	Maxilin, under bacteriological stool monitoring.		
OUTCOMES REPORTED	Improved general condition; normalized digestion.		
MICROBIOLOGICAL FINDINGS	Reduced lactose-negative coliform counts; reappearance of bifidobacteria and acidophilus rods.		
LIMITATIONS	No patient count, dosing, or duration specified in the act.		

INSTITUTION	1st Polyclinic Association / Central Clinical Hospital, Almaty	**DATE**	Apr–Jun 1994 (act approved 29 Jul 1994)
POPULATION	General adult dysbacteriosis population	**EVIDENCE TYPE**	Institutional clinical act, physician-signed.
INTERVENTION	Maxilin per the same Ministry-approved protocol.		
OUTCOMES REPORTED	Improved general condition; normalized digestion.		
MICROBIOLOGICAL FINDINGS	Reduced lactose-negative coliform counts; reappearance of bifidobacteria and acidophilic organisms.		
LIMITATIONS	No patient count, dosing, or duration specified in the act.		

6. Ministry-Approved Clinical-Use Instructions

GOVERNMENT/PROFESSIONAL

Two clinical-use instructions for Maxilin were formally approved by the Pharmacological Commission of the Ministry of Health of the Republic of Kazakhstan, developed by the Alma-Ata State Medical Institute (AGMI).

Original document: Instruction for the vaginitis/gynecological clinical-use protocol
Approved by: Chairman, Pharmacological Commission, Ministry of Health of the Republic of Kazakhstan (Dilbarkhanov), 19 Feb 1994
Significance: A government body reviewed and formally stamped a specific dosing protocol for this product — this is regulatory-record evidence, not company literature.

Instruction	Approved	Dosing	Notes
Vaginitis/gynecological use	19 Feb 1994	Intravaginal, 2–50 ml, or soaked tampons 2–3 hrs/day; 5–10-day course	No stated contraindications
Dysbacteriosis/GI use	1993	Age-based: infants <6mo 1–30ml; 6–12mo 30–60ml; 1–5yr 60–120ml; >5yr 120–200ml; adults 200–400ml, 1–2×/day, 10 days–2+ months	No stated adverse effects at these doses

Source: Instructions authored by G.A. Gulyaeva and T.A. Kharitonova, AGMI, 1993–1994; reaffirmed in the 2013 ANGEK professional-association statement (dosing 60–250 ml by age, 1–3×/day)

7. Laboratory Validation — Antigen Protocol No. FKh/26 (2025)

LABORATORY VALIDATION

An independent Kazakh physico-chemical testing laboratory (TOO Antigen) analyzed the liquid product against national dairy standards (GOST/CT RK, TR TS 033/2013) in March 2025 — the most recent independent analytical data in this dossier.

Parameter	Result	Method
Protein	5.6 g / 100 ml	GOST 30648.2-99
Vitamin C	67.6 mg / 100 ml (HPLC-DAD)	GOST 34151-2017
Energy value	32.95 kcal / 100 ml	—
Calcium	1,825.3 mg / 100 ml	GOST 30178-96
Potassium	362.8 mg / 100 ml	GOST 30178-96
Magnesium	194.2 mg / 100 ml	GOST 30178-96
Zinc / Iron / Copper	0.908 / 0.129 / 0.024 mg / 100 ml	GOST 30178-96

Calcium value flagged for confirmation

The original protocol's table header explicitly states mg/100 ml, and that unit is used throughout this dossier without conversion, per source. However, 1,825.3 mg calcium per 100 ml (18.25 g/L) is physiologically implausible for any dairy-based product — roughly 15× typical fortified milk. This should be confirmed directly with the manufacturer/laboratory before being used in any physician-facing nutritional claim; it may reflect a transcription or unit error in the original protocol rather than the true content.

Source: Protokol ispytaniy No. FKh/26, TOO Antigen NPP, 3 March 2025

8. Veterinary & Field Evidence

VETERINARY FIELD EVIDENCE

Veterinary and agricultural field evidence corroborates the organism's antagonistic and antibiotic-tolerant behavior at scale — it is supportive biological context, not a substitute for human clinical evidence.

133,232	1,277	+0.4 kg	300–350 → 40–100
Piglets in the Volynsky field program	Fewer reported losses attributed to diarrhea/dysbacteriosis (~1%)	Reported weaning-weight gain per head	Almaty Kus daily poultry deaths, before vs. after 4 days

Swine — "Volynsky" agricultural complex (1985–1989)

Across 133,232 piglets, the historical field document reports approximately 1,277 fewer losses attributed to diarrhea and dysbacteriosis after the strain-2585 preparation was introduced — roughly 1% of the total population — together with approximately 0.4 kg greater rearing weight per head. The same complex, across 500 sows, used the preparation intrauterine (150–200 g dose) to treat sow metritis; the acts report resolution of metritis signs by day 3 and estrus resuming 6–7 days after weaning, replacing antibiotic treatment, which the same acts note passed into piglets via milk and disrupted their resident flora. A 1982 toxicology screen found no pathogenicity in a mouse bioassay.

Poultry — Almaty Kus / Alel-Agro (2006–present)

In two poultry houses affected by colibacillosis and coccidiosis, daily mortality of 300–350 birds fell to 40–100 birds after four days of Maxilin (2 ml/kg feed). Scaled operation-wide (~10 kg/tonne feed, up to 40 days, no antibiotics required), the program reported 4–5% improved bird survivability, 25–40% improved livestock survivability across applications, 1–1.5% improved egg-laying rate, stronger eggshells, and a 2% economic gain above plan from October 2006 onward. Kazakhstan's Nutrition Academy found treated-bird meat met high-quality, ecologically clean standards.

Original document: Almaty Kus / Alel-Agro field report, signature page
Signed by: Board chairman, deputy chairman, chief accountant, chief technologist, chief veterinarian, and the producer (TOO MAX-IGM)
Seal: Official corporate seal of TOO MAX-IGM, the Maxilin producer

9. Patents, Trademark & Regulatory History

PATENT / IP RECORD

A patent validates novelty and intellectual-property ownership — it does not, by itself, prove clinical efficacy. These records establish that patent examiners in two jurisdictions found the production method and organism sufficiently novel to grant protection; they are IP history, presented alongside — not in place of — the clinical evidence above.

Eurasian Patent No. 014227 B1 (2010)

“Method for producing the fermented-milk product 'Maxilin' and method of correcting microflora in the organism of humans and animals.” Filed 15 Dec 2006, granted 29 Oct 2010. Patent holder: Grigory Ivanovich Miroshnikov (KZ); inventors: Miroshnikov, Sergey Ivanovich Tsyplakov, Vladimir Sergeevich Korolenko. Valid across nine Eurasian Patent Convention states (Azerbaijan, Kyrgyzstan, Armenia, Belarus, Kazakhstan, Moldova, Tajikistan, Russia, Turkmenistan), subject to annual fees. The patent's prior-art review surveys earlier Soviet/Kazakh acidophilus patents (SU 1128390, KZ 4853, KZ 4928) and states that none reliably achieved sufficient effectiveness across all cases of dysbacteriosis — the gap this method is presented as addressing.


ЕВРАЗИЙСКАЯ ПАТЕНТНАЯ ОРГАНИЗАЦИЯ
ЕВРАЗИЙСКОЕ ПАТЕНТНОЕ ВЕДОМСТВО

ЕВРАЗИЙСКИЙ ПАТЕНТ

№ 014227

Original document: Eurasian Patent No. 014227 B1, official certificate
Granted by: President, Eurasian Patent Office (A.N. Grigoryev), 29 Oct 2010
Seal: Embossed Eurasian Patent Organization seal

Kazakhstan National Patent No. 14850 (2004)

“Method for producing a fermented-milk product, method of correcting microflora of non-sterile body cavities.” Filed 19 Mar 2004. Authors: Miroshnikov and Alexey I. Gulyaev; patent holder: Gulyaev.

Trademark & manufacturing conformity

Wordmark “MAKSILIN,” application No. 27819 (filed 2 Jul 2004), registered to TOO MAX-IGM, covering veterinary/pharmaceutical preparations, dairy products, and advertising services. A 2012 Kazakhstan conformity certificate (KCC No. 0141230) certifies Alel-Agro fermented dairy products against applicable technical regulations.

ANGEK professional statement (2013)

The Association of Nutritionists, Gastroenterologists and Endoscopists of Kazakhstan, chaired by Prof. Izatullaev E.A., issued a statement describing Maxilin (culture 2585-1666) as indicated for gut-flora disturbances in

post-cholecystectomy states, chronic pancreatitis, IBS, biliary dysfunction, and hepatic steatosis — the most recent formal professional endorsement in this dossier.

10. The Modern Product: Historical Foundation, Modern Formulation

COMPANY SPECIFICATION

The evidence in Sections 4–9 was generated on the historical **liquid** form of Maxilin, distributed in Eastern/CIS markets and built on strain 2585. The product now being introduced in Western markets is a **dry sachet** formulation — the same foundational strain, carried into a modern multi-organism format.

Current sachet specification (per company/requester)

Organism	CFU
Lactobacillus acidophilus	15 billion
Streptococcus thermophilus	4 billion
Lactobacillus helveticus	1 billion
Total	20 billion CFU

Also contains: resistant dextrin, inulin, vitamin C, lactase, and vanillin.

This specification is as provided by the requester/company. As with any probiotic product, labeled CFU is typically a manufacturing or expiration-date specification; no lab protocol in this dossier has independently assayed viable CFU, identity, or purity for this sachet.

Historical foundation + modern formulation + next research opportunity

Strain 2585 (*L. acidophilus*) is common to both forms, and the patented process and organism lineage connect them historically. The sachet adds two additional, well-characterized organisms (*S. thermophilus, L. helveticus*) in a modern delivery format. The historical Maxilin record provides an unusual foundation — four decades of institutional use, a published study, and two patents built around the core organism. Independent identity, viable-CFU, stability, and clinical testing of the current sachet would connect that historical evidence directly to the modern commercial formulation, and is a natural next step rather than a gap to apologize for (see Section 14).

11. From Skepticism to Clinical Conviction

What physicians and experienced practitioners reported after actually working with Maxilin

PRACTITIONER EXPERIENCE / REAL-WORLD CLINICAL OBSERVATION

Dr. Nazgul Asanovna Badykeeva

Publicly available EnergyMax and distributor materials describe Dr. Badykeeva as a graduate of the Sechenov Moscow Medical Academy, a physician/therapist, integrative-medicine practitioner, naturopath, health coach, and nutritionist. She describes decades of medical and nutritional practice and approximately two decades of experience working with probiotics before encountering Maxilin; her exact stated years of experience vary somewhat across different public recordings.

The arc: skepticism, not enthusiasm, is where she starts

~20 yrs	2020	Skeptical	Convinced
Prior experience with probiotics from Russia, Europe, US, S. Korea	Maxilin introduced to her practice	Assumed it was “just another probiotic”	Reports observations she had not seen with other products

According to her own account, Maxilin came into her hands roughly five years before this recording, after some 20 years of experience with probiotic products sourced from Russia, Europe, the United States, and South Korea. She says she initially assumed it was simply another probiotic and underestimated it — and that her assessment changed through clinical practice, as she began seeing responses she had not seen with ordinary probiotics.

Why she says most probiotics fall short — and what she says is different here

In her own teaching, Badykeeva explains her initial skepticism by describing most commercial probiotics as laboratory-grown organisms she calls “transit passengers” — strains that pass through the gut, act briefly, and leave without establishing themselves. She distinguishes Maxilin's strain as a naturally occurring lineage she describes as adapted over evolutionary time to compete against unwanted organisms in the human intestine, rather than a strain selected for ease of laboratory cultivation. This distinction — ecological adaptation versus laboratory convenience — is presented as the reason she reconsidered a product she had initially dismissed as generic.

She also teaches that microflora restoration is a long-term systemic process rather than a short course: she recommends a minimum of roughly eight months of continuous use, longer for patients with an extensive antibiotic history, and explicitly rejects framing it as a 10-day probiotic regimen. This long-timeframe framing matters for how her later observations should be read — she describes gradual change over months, not a single dramatic event, as the basis for her opinion in most cases.

> **“I initially underestimated it.”**

According to her account, when Maxilin first reached her, she treated it as functionally interchangeable with the many other probiotic products she had already used for two decades — worth trying, but not worth particular attention. She describes that assessment holding for a period of real-world use before it changed: not a single dramatic moment, but an accumulation of clinical observations she says she had not seen with any of the other products in her prior experience. It was that accumulation — not the introduction itself — that she credits with changing her professional opinion, which is why the observations in the rest of this section carry weight for her: they are the reason a skeptical, widely-experienced practitioner reconsidered a product she had already dismissed once.

A physician-reported case: severe dysentery, antibiotics already underway

CLINICAL CONTEXT	Hospitalized patient, severe/aggressive dysentery, already receiving antibiotics for several days with persistent severe intestinal pain
WHAT WAS ADDED	Maxilin, given by the treating physician in addition to ongoing antibiotic therapy
OBSERVED	Per Badykeeva's retelling of her colleague's account, the patient was eating with appetite and reported substantial relief of intestinal pain roughly 1.5 hours later
TIMEFRAME	~1.5 hours after a single dose, per the account
SOURCE / EVIDENCE TYPE	Second-hand physician-reported case, recounted by Badykeeva in a recorded webinar (not a chart review or published case report)

Conventional antibiotic treatment was already underway throughout; this is not presented as Maxilin replacing or outperforming antibiotics, and causality cannot be established from a single recounted case.

From anecdote to signal

Badykeeva describes returning to Atyrau to teach a follow-up seminar after an earlier session there, and being approached by numerous people who independently reported results they attributed to Maxilin. Per the supplied account, she describes being surprised by the volume of unprompted, live feedback — people she had not specifically followed up with, arriving with their own stories — and says this repeated, independent pattern demonstrated the product's effect to her more than any single case could have.

She separately describes an ongoing pattern rather than a one-time event: she says she checks messaging apps daily and receives recurring feedback from users across Russia and Kazakhstan, concentrated among people using the product for a year or more. The recurring themes she reports are longstanding complaints gradually diminishing, increased energy, and patients describing themselves as feeling younger — changes she frames as emerging over months, consistent with her teaching that restoration is a long-term systemic process rather than a short course.

She also describes a specific chronic-disease pattern from her practice: patients with gout severe enough that they had been walking with a cane and could barely move, obtaining functional improvement through the program. She attributes this to restoring systemic function broadly rather than to any direct effect on uric acid levels — consistent with her general framework that Maxilin works by rehabilitating gut and immune function rather than acting on a single disease marker.

One observation is an anecdote. Repeated observations create a question worth investigating.

None of the patterns above include names, dosing records, or objective measurements in the supplied source — they are reported as recurring impressions from practice, not case records. Repeated practitioner observations do not establish causality. They can, however, identify recurring clinical signals worthy of systematic documentation and prospective research — which is the same conclusion Section 14 reaches independently from the formal evidence.

Practitioner Experience Matrix

Practitioner	Context / Prior Experience	Observation	Evidence Type
Dr. N. Badykeeva	~20 yrs prior probiotic experience across 4+ countries	Initially skeptical; repeated clinical practice changed her professional assessment	First-person practitioner testimony
Infectious-disease physician (unnamed)	Hospitalized dysentery patient, antibiotics already underway	Reported rapid symptomatic relief (~1.5 hrs) after Maxilin added	Second-hand physician case, recounted by Badykeeva
Recurring users (unnamed, multiple)	Long-term use, Russia/Kazakhstan, per practitioner report	Gradual improvement in chronic complaints, energy, vitality over months	Practitioner group observation (Type C)
Atyrau seminar attendees (unnamed, multiple)	Independent return visits after an earlier seminar	Numerous unprompted reports of results, encountered live and independently	Practitioner group observation (Type C)
Gout patients (unnamed, multiple)	Severe gout, previously required a cane to walk	Reported functional improvement, attributed to systemic rather than uric-acid-specific effect	Practitioner group observation (Type C)

These accounts are another evidence layer, not an isolated testimonials page. The dossier now spans historical strain development, an indexed publication, human microbiological research, institutional clinical records, Ministry-approved historical use, veterinary field experience, patents, modern laboratory analysis, and repeated practitioner observation. Whether these independent streams point toward the same underlying biological or clinical signal is the question Section 14 takes up next.

12. The Evidence Hierarchy

Tier	What exists	What it contributes	What it cannot establish
1. Published research	1 indexed paper (Sec. 3)	Independently verifiable, peer-reviewed antagonism data	Clinical efficacy; gut-microbiome relevance
2. Human clinical/ institutional	KazNMU study; 3 institutional acts (Sec. 4–5)	Human outcome & microbiology data under real treatment	Randomized-trial-level proof; blinding
3. Government/ professional	2 Ministry instructions; ANGEK 2013 statement (Sec. 6, 9)	Regulatory-body-reviewed dosing & indication scope	Modern regulatory clearance (FDA/EMA)
4. Laboratory validation	2025 Antigen protocol (Sec. 7)	Independent compositional analysis	Efficacy; sachet-specific composition
5. Patents / IP	KZ 2004; Eurasian 2010 (Sec. 9)	Novelty & IP protection	Clinical efficacy of any kind
6. Veterinary field	Swine, poultry (Sec. 8)	Cross-species biological corroboration	Human clinical proof
7. Practitioner/ scientist testimony	Badykeeva account + 1 physician-reported case (Sec. 11)	Clinical hypotheses; real-world signal	Controlled evidence of any kind
8. Marketplace observation	Distributor feedback (powder form, Western market)	Early commercial signal	Any form of clinical or compositional equivalence

13. What This Establishes / What Remains to Be Studied

The Maxilin record is unusual not because every question has already been answered, but because multiple evidence streams developed across decades — microbiological research, institutional clinical records, an indexed publication, veterinary field experience, intellectual-property documentation, and repeated practitioner observation — converge on the same organism and similar reported behavior.

Of particular interest is the testimony of an experienced physician who describes beginning with skepticism and changing her professional opinion after repeated real-world experience (Section 11). Those observations do not replace controlled research. They help identify the questions controlled research should now answer.

Stated once, plainly: contemporary randomized, placebo-controlled, blinded human trials — conducted on the current sachet formulation specifically — do not exist in this dossier. That is the central evidence gap, and it is the reason Section 14 exists.

Where the next chapter begins

- Independent analytical testing of the actual sachet (identity, purity, viable CFU at expiration)
- A prospective, controlled human trial on the sachet formulation for a specific, well-defined indication
- Full-text verification of the Pichkhadze et al. (2000) antibiotic-susceptibility findings
- Structured documentation of the strain's broader veterinary application history
- Systematic, transcript-verified documentation of the recurring practitioner signals described in Section 11, beyond the recordings reviewed for this dossier

14. The Next Chapter: From Historical Evidence to Modern Microbiome Science

The historical evidence creates a clear, specific research agenda — not a list of things “not yet proven,” but an invitation to build the next generation of evidence:

- Strain genomic characterization and modern taxonomic confirmation
- Modern gut-microbiome sequencing (16S/shotgun) pre- and post-supplementation
- Sachet identity, purity, and viable-CFU testing through expiration and simulated GI transit
- Structured antibiotic-co-administration studies
- Prospective practitioner registries capturing real-world outcomes systematically
- A controlled dysbiosis study replicating and extending the KazNMU protocol
- Publication of a modern case series as a first step toward a registered trial

Physicians evaluating Maxilin today have an unusual opportunity: not simply to consume an existing evidence base, but to help build the next generation of it.

15. Claims Framework

A quick-reference guide for what can be said with confidence, what needs qualification, and what this dossier does not support — regardless of what appears elsewhere in company marketing material.

Documented / Defensible	Requires Qualification	Not Substantiated by This Dossier
Multi-decade research & institutional-use history	Antibiotic tolerance/adaptation (organism survives antibiotic exposure)	Treats or cures cancer / oncology
Strain 2585 lineage, patented	Historical military/Afghanistan use (company narrative, uncorroborated)	Cures serious or systemic infections
Human dysbacteriosis microbiological observations (KazNMU)	Powder/sachet delivering equivalent or better results (marketplace feedback, not tested)	Replaces antibiotics
In vitro antagonistic activity under studied conditions (Pichkhadze et al. 2000)	Practitioner-reported outcomes — observational testimony documented in Section 11; requires qualification and does not establish causality	Treats COVID-19 or other viral disease
Institutional clinical use, Ministry-approved instructions	“First/only in the world” claims (unverifiable superlative)	Broad disease-treatment or universal-effectiveness claims

16. The Opportunity

SCIENCE + EDUCATION + COMMUNITY + ENTREPRENEURSHIP

A physician-led opportunity

Maxilin sits at an unusual intersection: a multi-decade microbial research history, growing global interest in microbiome science, a modern consumer product, and an expanding international community.

Physicians and scientifically sophisticated practitioners can contribute something uniquely valuable:

- Credible microbiome education
- Intelligent evaluation of outcomes
- Higher standards of documentation
- Practitioner case conferences
- Structured real-world evidence
- Participation in future research
- Professional and consumer education
- Responsible entrepreneurship

The opportunity is larger than introducing another probiotic. It is the opportunity to help determine what the next chapter of Maxilin becomes.

This section describes an entrepreneurial and educational opportunity, not a guarantee of income or business results. Holding a medical license does not validate the product or substitute for the evidence and limitations set out in Sections 1–15.

17. Source Document Index

#	Document	Date / Ref.	Tier
1	Pichkhadze, Rusanov, Novoselov, Stomatologiia (Mosk). PMID 10961107	2000	1
2	KazNMU research paper — GI microflora correction with Maxilin eubiotic	undated	2
3	1994 Republican Polyclinic act — genital infection/dysbacteriosis	31 Oct 1994	2
4	1994/1995 Institute of Pediatrics act	approved Mar 1995	2
5	1994 1st Polyclinic Association act	approved 29 Jul 1994	2
6	Clinical-use instruction — vaginitis/gynecological	approved 19 Feb 1994	3
7	Clinical-use instruction — dysbacteriosis/GI, age-based dosing	approved 1993	3
8	ANGEK professional association statement	approved 17 Sep 2013	3
9	Antigen NPP Protocol No. FKh/26	03 Mar 2025	4
10	Eurasian Patent No. 014227 B1	granted 29 Oct 2010	5
11	Kazakhstan Patent No. 14850	filed 19 Mar 2004	5
12	Trademark registration, application 27819	filed 02 Jul 2004	5
13	Kazakhstan conformity certificate No. 0141230	issued 08 Oct 2012	5
14	1985–1989 Volynsky complex acts — swine field trials	1985–1989	6
15	Almaty Kus / Alel-Agro poultry report	undated (program from 2006)	6
16	1982 toxicology clearance letter	23 Jul 1982	6
17	1984 USSR Institute of Nutrition finding — poultry meat quality	21 Sep 1984	6
18	Company narrative document “MAKSILIN”	undated	7 (historical account)
19	Sachet CFU specification	as provided by requester	8 (company spec)
20	Badykeeva webinar transcript (partial), EnergyMax	recorded 1 Feb 2026	7 (practitioner testimony)
21	"Maxilin Complete Stories & Training" — secondary story-archive extraction	undated	7 (secondary/practitioner)

This dossier is a compilation and translation-summary of documents supplied by the requester, plus one independently verified PubMed record. It does not constitute independent scientific verification, legal advice, or regulatory clearance for any market. Original-language source documents should be retained and referenced for any formal regulatory, legal, or scientific submission.